

Remarks

Status of the claims: Claims 1-9, 12-19, 28-29 and 31 are currently pending. Claims 10-11, 20-27 and 30 were previously canceled.

Claim 1 and 2 have been rejected under 25 U.S.C. 103(a) over *Richard* in view of *Muramatsu*. That rejection is respectfully traversed.

The present invention is directed to a configuration which avoids the use of a conventional plug wrap and provides a simplified filter structure that provides reliable and consistent ventilation.

Referring to *Richard*, the Examiner states on page 3 of the Office Action in the first paragraph that *Richard* teaches all of the features of claim 1 apart from the inherent permeability of the tipping paper being 50-500CU. *Muramatsu* is cited as teaching a tipping paper in a range of 300-600CU and on this basis it is contended that it would be obvious to use porous tipping paper in the cigarette of *Richard*.

The Examiner has indicated that *Richard* teaches a filter wrapped only in a first tipping paper but does not expressly disclose that the inherent permeability of the tipping paper is 50-500CU, thus implying that the tipping paper disclosed is permeable. What has been overlooked is that *Richard* does expressly disclose (Col. 3 lines 22-32) that its tipping paper 16 of Fig. 1 is “air impervious”, that it is not ventilated, and that ambient air cannot enter the filter plug through the tipping paper. The same is true of the plug wrap 35 and 45 of the *Richard* Figs. 3 and 4

embodiments.

The Examiner further states that the tipping paper of *Richard* is made permeable via inscribing grooves. This is clearly in error since the tipping paper remains impermeable and the inscribed grooves are thus needed to channel air into the mouth of the smoker.

Thus in view of the above *Richard* disclosures that the cigarette embodiments thereof must be provided with filters wrapped in an impermeable material, regardless of whether the material is called tipping paper or plug wrap, it is a clear teaching away from the embodiments of Applicant's invention. The question can thus be asked, why would one skilled in the art even be looking for a teaching of replacing *Richard's* impermeable wrap with a tipping paper having an inherent permeability of 50-500CU. The clear answer is that it would not conceivably happen.

Turning to the Muramatsu reference, it is clear that the reference reinforces Applicant's view that there is no basis for combining its teachings with *Richard*.

Muramatsu discloses a solution to the problem of controlling ventilation through the filter. However, *Muramatsu*, in accordance with conventional wisdom, provides a two layer structure over the filter and optimizes the ventilation characteristics of the two layer structure. It is to be noted that no single layer structure is proposed or suggested. Instead, *Muramatsu* considers that the variation in filtering characteristics that occur from one cigarette to another is due to the difference in tightness of the tipping paper on the plug wrap paper that occurs between cigarettes during manufacture. This is discussed in column 1, lines 46-61 of *Muramatsu*. Thus, the whole basis of the improvement devised by *Muramatsu* is predicated on the assumption that a

two-layer paper structure is utilized.

In the specific embodiments of *Muramatsu*, the plug wrap 18 is highly porous and has a Coresta permeability of 1,000 or more, whereas illustrated in Table 1, the tipping paper has a lower, more usual permeability of 300-600CU. Thus, the function of the tipping paper in *Muramatsu*, amongst other things, is to control the permeability for ventilation, whereas the plug wrap 18 is primarily for the purpose of providing structural form to the filter and hardly represents any impedance to ventilation of flow. According to *Muramatsu*, an embossment 24 is provided on the tipping paper to provide a reliable ventilation arrangement which does not vary significantly from cigarette to cigarette.

Thus, the skilled person on reading *Muramatsu* would not appreciate that the tipping paper could be used on its own i.e. not in combination with a plug wrap 18. Indeed, conventional wisdom is that a plug wrap would be needed to hold the filter material in place during the cigarette manufacturing process. Furthermore, referring again to *Richard*, a skilled person is taught by *Richard* not to use a porous wrap. Instead, in Figure 1, the tipping paper 16 is “air impervious”. In the embodiment of Figure 2, the wrapper 26 also is air impervious. In Figure 3, the wrap 35 is “non porous”. Similarly, in Figure 4, a wrap 45 is air impervious. Additionally, it is to be appreciated that in *Richard*, ventilation is provided by exterior grooves 18, 28, 38, 48. In order for the grooves to work satisfactorily, it is essential that the wrap is non-porous. This is clear from claim 1 of *Richard* which specifies “smoke-impervious wrap means wrapped about and circumscribing said (filter) rod along its entire length”.

A skilled person will appreciate that it is important in *Richard* to have a smoke-impervious wrap because otherwise, the grooves would not function reliably to provide ventilation air.

Thus, there is clearly no teaching, suggestion, or motivation for a skilled person to incorporate the permeable wrapper of *Muramatsu* into the structures of *Richard* because it would be immediately evident to the skilled person that it would not work effectively.

The present invention gives rise to the advantage of providing a very simple, reliable, inexpensive, easy to manufacture a configuration for a filter with ventilation, in which the conventional plug wrap is no longer used but instead, tipping paper is used to surround the filter material, and split tipping is used to attach the so formed filter to the tobacco rod. For the reasons stated above, this elegantly simple configuration is just not suggested by *Muramatsu* or *Richard* either singly or in combination.

Claim 3 has been rejected under 35 U.S.C. 103(a) over *Richard* in view of *Muramatsu* and *Barnes*. Applicant respectfully traverses this rejection.

Claim 3 is dependent from claim 1 and is thus patentably distinct from the teachings of *Richard* and *Muramatsu* for the reasons stated above. Moreover, the foil wrapper 32 of *Barnes* is disclosed for a wholly different purpose on a markedly different smoking article.

Claims 4-6 have been rejected under 35 U.S.C. 103(a) over *Richard* in view of *Muramatsu* and *Molina*; Claim 4-6 are all directly or indirectly dependent from claim 1 and therefore patentably distinguishable thereover for the reasons stated above. Moreover, the

Molins reference refers only to the use of cork printed material and not to the types of printing or imprinting disclosed by Applicant.

Claims 7-8 have been rejected under 35 U.S.C. 103(a) over *Richard* in view of *Muramatsu* and *Perfetti*. Claims 7 and 8 depend directly or indirectly from claim 1 and are therefore patentably distinguishable from *Richard* and *Muramatsu* for the reasons stated above. Moreover, the tipping paper 45 of *Perfetti* is clearly stated at column 3 lines 3-6 to circumscribe “the entire length of the filter”. The 3-6 mm figure quoted by the Examiner relates to the length of the tobacco rod over which the tipping paper extends, not to its coverage (which is full) over the filter.

Claim 9 has been rejected under 35 U.S.C. 103(a) over *Richard* in view of *Muramatsu*, *Perfetti*, and *Molins*. Claim 9 depends from claim 1 and therefore is patentably distinguished from *Richard*, *Muramatsu*, and *Perfetti* for the reasons discussed above with regard to claim 1 and claims 7 and 8. The reference to *Molins* does not overcome the fact that the *Perfetti* strip covers the entire length of the filter, not an area closely adjacent the joint abutment of the tobacco rod and filter.

Claim 12 has been rejected under 35 U.S.C. 103(a) over *Richard* in view of *Muramatsu* and *Salonen*. Claim 12 is dependent from claim 1 and thus is patentably distinguishable over *Richard* and *Muramatsu* for reasons stated above. Moreover, the *Salonen* reference relates to a tipping paper which connects the filter to the tobacco rod, which is the second tipping paper of the embodiments of the invention. Applicant’s claim 12 is drawn to the first tipping paper of the

embodiments of the invention.

Claims 13-17 have been rejected under 35 U.S.C. 103(a) over *Richard* in view of *Muramatsu* and *Bushby*. Claims 13-17 are dependent directly or indirectly from claim 1 and are therefore patentably distinguishable from *Richard* and *Muramatsu* for reasons set forth above. The reference to *Bushby* does not cure the deficiencies of *Richard* and *Muramatsu* as references as discussed above.

Claim 18 has been rejected under 35 U.S.C. 103(a) over *Molins* in view of *Richard* and *Muramatsu*.

The deficiencies of *Richard* and *Muramatsu* as references for the embodiments of the present invention have been fully discussed above. The Examiner's view that the reference to *Molins* discloses filters wrapped only in a tipping paper cannot be substantiated. *Molins* discusses only two types of "filter", conventional filters having two layers of material enwrapping the filter (col. 5 lines 17-20) where the outer layer is a "cork wrapper", and mouthpiece tubes for Russian cigarettes, which are in fact not really filters but only hollow tubes which act as mouthpieces in Russian cigarettes (col. 6 line 62-col. 7 line 36). The discussion in *Molins* cited by the Examiner at col. 5 lines 20-25 merely indicates that the "cork" layer (outer) can be shortened when a ring tipping method is used to connect the filter to the tobacco section. Accordingly it is submitted that the reference to *Molins* fails to overcome the deficiencies of *Richard* and *Muramatsu* as references, and the rejection based on those three references is respectfully traversed.

Claim 19 has been rejected under 35 U.S.C. 103(a) over *Molins* in view of *Brooks*, *Richard*, *Muramatsu*, and *Clarke*. The deficiencies of *Molins*, *Richard*, and *Muramatsu* as references have been discussed above. Neither *Brooks* which is cited for treating continuous filter tow, nor *Clarke* which is cited for the use of particulate matter in a filter wrapper overcome the deficiencies of *Molins*, *Richard*, and *Muramatsu* as references as discussed above.

Claims 28-29 have been rejected under 35 U.S.C. 103(a) over *Richard* in view of *Muramatsu*, and *Clarke*. The deficiencies of this combination of references have been discussed above.

Claim 31 has been rejected under 35 U.S.C. 103(a) over *Richard* in view of *Muramatsu* and *Salonen*.

The deficiencies of *Richard* and *Muramatsu* as references have been discussed with regard to claim 1. The deficiencies of *Salonen* as a reference have been discussed above with regard to claim 12.

Accordingly, Applicant has traversed all rejections set forth in the Office Action mailed December 7, 2010, and it is submitted that this Applicant is now in condition for allowance. Such action is respectfully requested.

The Examiner is invited to contact the undersigned Attorney by phone if there are any further issues which require discussion.

Respectfully submitted,

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Date: February 17, 2011

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